

A

Fastening for mounting rail

B

C

D

E

F

G

H

I

K

L

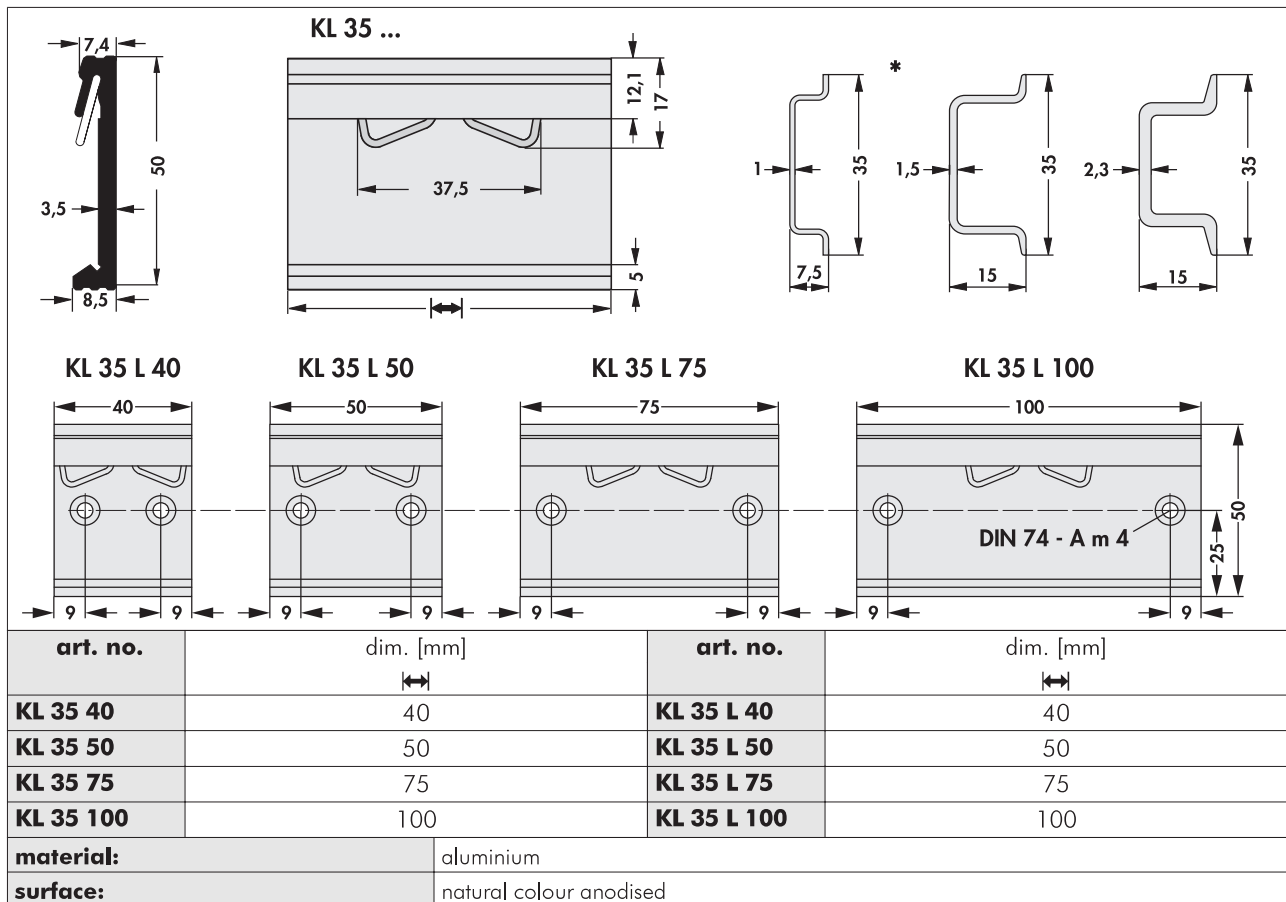
M

N



- universal, massive aluminium clamp mounting for all 35mm mounting rails
- suitable for rail material thicknesses from 1 to 2.3 mm according to DIN EN 60 715 (formerly DIN EN 50 022)
- fast and easy mounting of heatsinks, casings etc. by direct snap up on the mounting rail

- safe hold due to a stable extruded profile with integrated wire form spring made of stainless steel
- special lengths ($\geq 40\text{mm}$), machinings and surfaces upon request
- * = examples of mounting rail versions suitable for KL 35



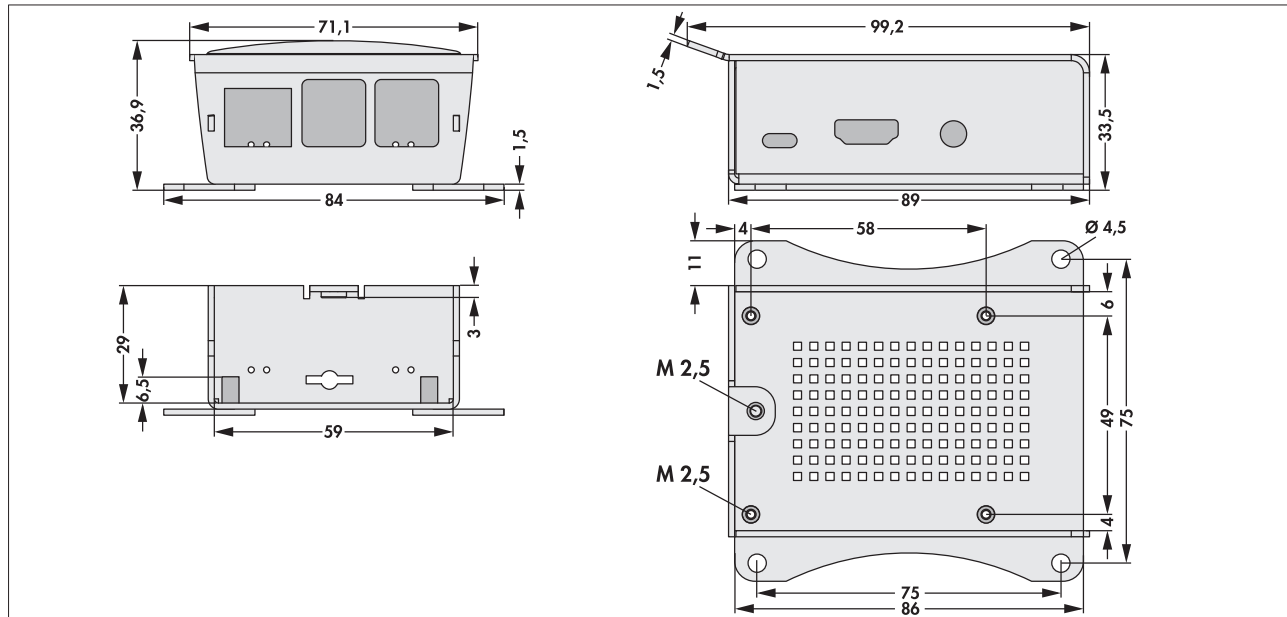
Shell cases for Raspberry Pi



contents of delivery:

1 = 1 x upper part; **2** = lower part; **3** = 2 x fixing clamp (optional); **4** = 1 x mounting material

- solid case made of 1,5 mm thick aluminium half shells designed for the single board computer Raspberry Pi
- easy to install thanks to an easy screwing
- ventilation slots in the upper and lower part for an improved heat transport
- optional fixing clamps, also fitting to VESA MIS-D 75 x 75
- optional heatsink set consisting of heatsink **ICK BGA 14 x 14**, **ICK BGA 10 x 10** and appropriate double sided adhesive thermal conductive foil **WLFT 404**
- special machinings, further surfaces and colours upon request



art. no.	details
RSP 1 ...	Raspberry Pi 2 Model B & Raspberry Pi 3 Model B, B+
please indicate:	... surface SA = black anodised ME = natural colour anodised MS = case profile SA, cover panels ME B = case profile SA, cover panels blue (similar to RAL 5015) R = case profile SA, cover panels red (similar to RAL 3001) OG = case profile SA, cover panels orange (similar to RAL 1028) ... fixing of mounting rail (optional) KL = fixing of mounting rail ... fixing strap (optional) L = with fixing straps ... heatsink set (optional) KS = heatsink set

In addition to standard colours the colours green (similar **RAL 6032**) and violet (similar **RAL 4008**) are available for the upper shell.

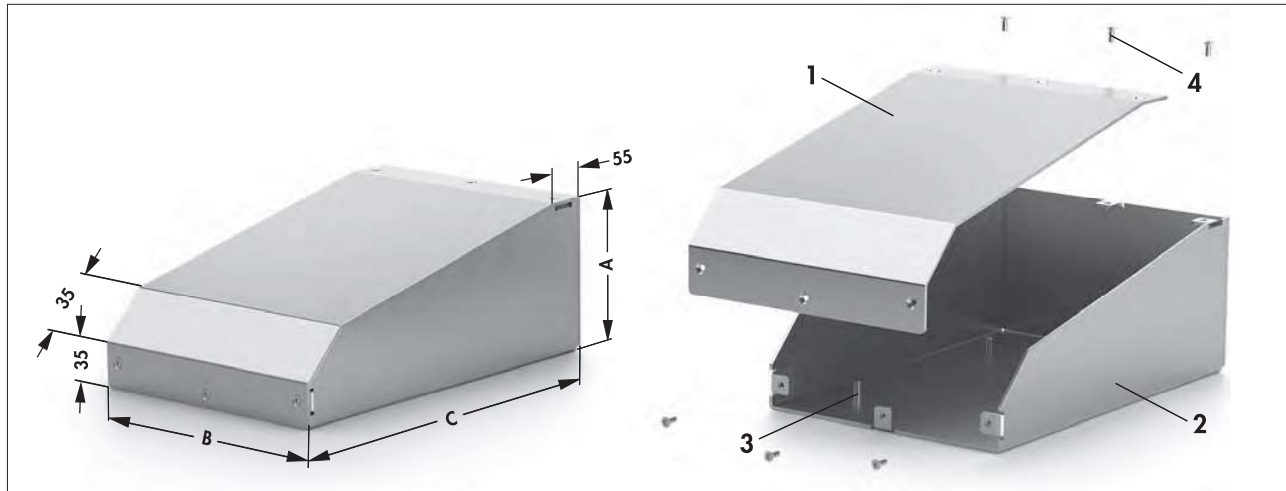
A

Shell cases variable

B

C

D



E

contents of delivery:

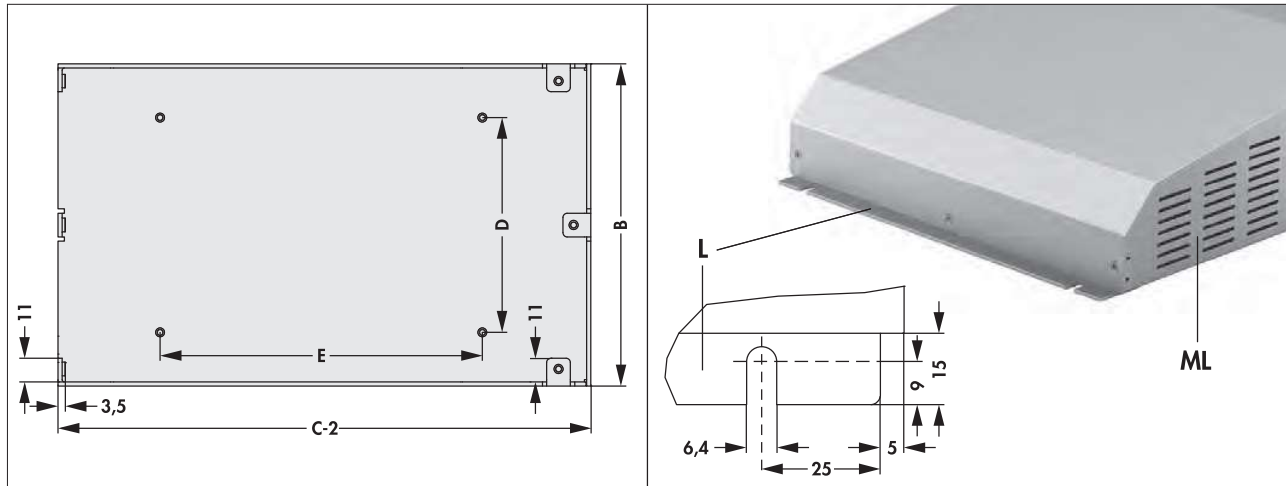
1 = upper shell; **2** = lower shell; **3** = 4 x M3 – threaded bush for PCB mounting; **4** = mounting material

- universal shell case with variable dimensions
- easy and fast mounting
- insertion of non-standardised PCBs and devices
- material thickness of the half shells 2 mm, other material thicknesses on request
- special treatments, surfaces and labelings acc. to customer specifications

F

G

H



I

K

possible dimensions:

art. no.	dim. [mm]					
	A	B	C	D	E	thread sleeve height
SGV P ...	max. 200	max. 500	max. 400	max. 376	max. 476	6/8/10/12/14/20

please indicate with your order:

art. no.	dim. [mm]					
	A	B	C	D	E	thread sleeve height
SGV P ...						

please indicate:

... surface

SA = black anodised

ME = natural colour anodised

TP = transparent passivated

... ventilation slots (optional)

ML = ventilation slots

... fixing tab (optional)

L = fixing tab

M

N

Case with slide-in cover panel



- versatile usable case with integrated guide slot for inserting non standardized components or PCBs
- slide-in cover panel in various metal sheet thicknesses: 1.5/2 mm (**GB 81 - 83, GB 307/308**); 2/2.5 mm (**GB 84**)
- integration possibility for front foils or foil keypads
- special dimensions, treatments and surfaces possible according to your demand

art. no.		
GD 55 28 ...		
art. no.		
GD 125 41 ...		
please indicate:	... 100 120 160 200 220 234 mm	... surface SA = black anodised ME = natural colour anodised

A

B

C

D

E

F

G

H

I

K

L

M

N

A

Extruded assembled cases

B

C



contents of delivery:

1 = 2 x side panel profile; **2** = 4 x design strip; **3** = 2 x cover plate (1.5 mm); **4** = 2 x cover plate (2 mm); mounting material

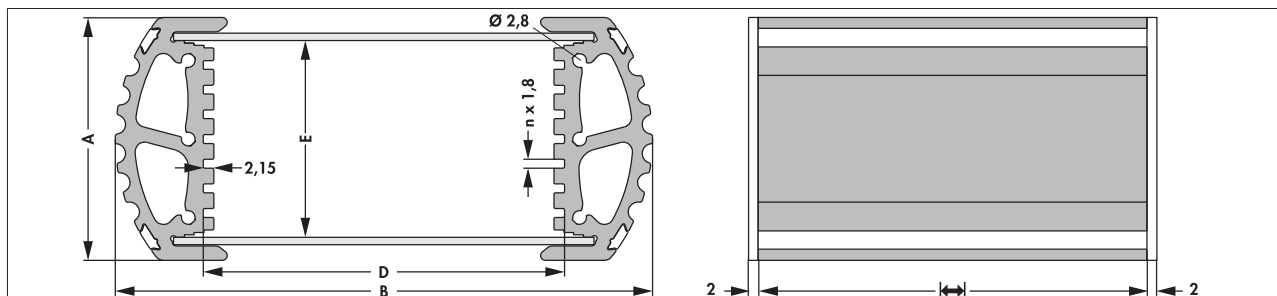
- variable case by utilization of aluminium sheets and extruded profiles in four different heights
- integrated guide grooves in the side panel profile for receiving PCBs
- the cover plates can be varied by 1.5 - 3 mm
- design strips are available in the colours **turquoise blue (similar to RAL 5018)**, **heather violet (similar to RAL 4003)**, **ultramarine blue (similar to RAL 5002)**, **fire red (similar to RAL 3000)** and **daffodil yellow (similar to RAL 1007)**
- other plate thicknesses, special productions, treatments and modifications according to your demands

D

E

F

G



art. no.	dim. [mm]					art. no.	dim. [mm]				
	A	B	D	E	n		A	B	D	E	n
GV 35 51 ...	35	84.2	51.0	25.5	4	GV 60 85 ...	60	123.2	85.0	50.5	9
GV 35 67 ...		100.5	67.3			GV 60 100 ...		138.5	100.3		
GV 35 85 ...		118.2	85.0			GV 60 116 ...		154.2	116.0		
GV 35 100 ...		133.5	100.3			GV 60 130 ...		168.2	130.0		
GV 35 116 ...		149.2	116.0			GV 60 160 ...		198.5	160.3		
GV 35 130 ...		163.2	130.0			GV 60 200 ...		238.2	200.0		
GV 35 160 ...		193.5	160.3			GV 60 233 ...		271.6	233.4		
GV 50 85 ...	50	121.2	85.0	40.5	7	GV 70 85 ...	70	125.2	85.0	60.5	11
GV 50 100 ...		136.5	100.3			GV 70 100 ...		140.5	100.3		
GV 50 116 ...		152.2	116.0			GV 70 116 ...		156.2	116.0		
GV 50 130 ...		166.2	130.0			GV 70 130 ...		170.2	130.0		
GV 50 160 ...		196.5	160.3			GV 70 160 ...		200.5	160.3		
GV 50 200 ...		236.2	200.0			GV 70 200 ...		240.2	200.0		
GV 50 233 ...		269.6	233.4			GV 70 233 ...		273.6	233.4		

please indicate:

... $\longleftrightarrow$
85 100 120 160 200 220 mm

... surface

SA = black anodised
ME = natural colour anodised

... colour design strip

EV = heather violet
FR = fire red
NG = daffodil yellow
TB = turquoise blue
UL = ultramarine blue

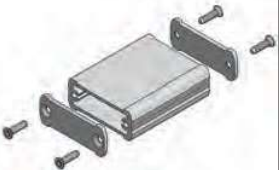
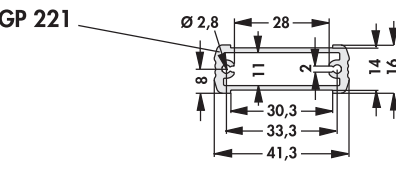
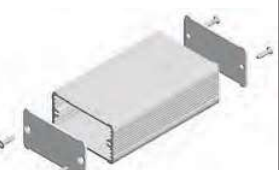
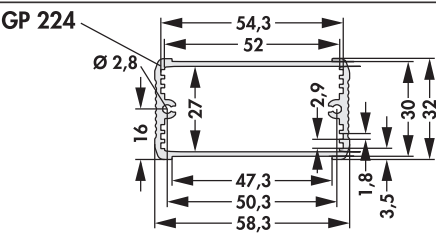
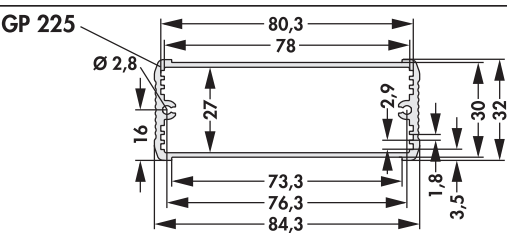
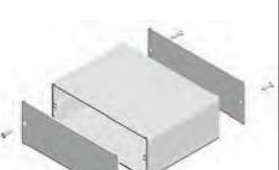
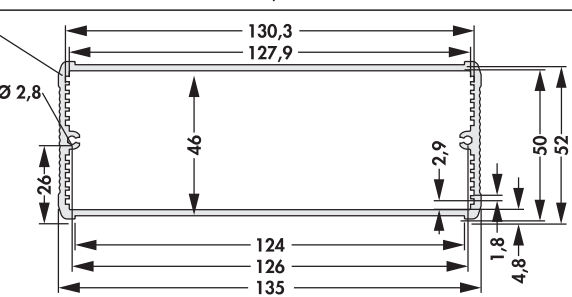
L

M

N

Tube cases

- universal tube case with integrated guide slots for insertion of non standardised circuit boards
- EMC compatible version due to electrical conductive surfaces (TP) and additional conductive seals **EDKO**
- integration possibilities for front foils or foil keypads
- the 2 mm covers panels can be perforated or imprinted acc. to your specifications
- supplied as demounted kit incl. cover plates and mounting material

art. no.		
TUF 41 16 ...		
art. no.		
TUF 58 32 ...		
art. no.		
TUF 84 32 ...		
art. no.		
TUF 135 52 ...		
please indicate: ...  50 80 100 120 160 200 220 mm		
... surface SA = black anodised ME = natural colour anodised MS = case profile SA, cover panels ME		

A

B

C

D

E

F

G

H

I

K

L

M

N

Tube cases



contents of delivery:

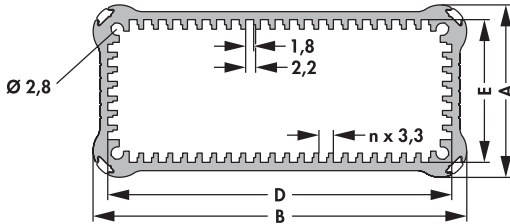
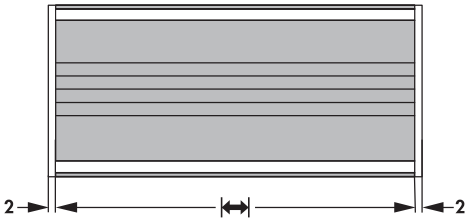
1 = 1 x basic profile (**GB 87** for **TUS 58 39 ...**, **GB 88** for **TUS 84 39 ...**)

2 = 2 x cover plate (2 mm)

3 = 4 x plastic design strip

4 = mounting material

- universal aluminium tube case with integrated guide slots for insertion of non-standardised components or circuit boards
- horizontal or vertical insertion possibility of PCB's in 1.6 or 2 mm material thickness
- ergonomical shape due to special outer contour
- EMC compatible version due to electrically conductive surfaces (**TP**) and additionally conductive sealings **EDKO "TUS"**
- design strips in sky blue (similar to **RAL 5015**), brick red (similar to **RAL 3002**), bright green (similar to **RAL 6038**), pure orange (similar to **RAL 2004**) or sulphur yellow (similar to **RAL 1016**)
- special designs, treatments, modifications and versions according to customer specifications
- further colours of the design bar and surface treatments upon request

				
art. no.	dim. [mm]			
	A	B	D	E
TUS 58 39 ...	39	58.9	52.2	32.3
TUS 84 39 ...		84.5	77.8	
please indicate:				
...  50 80 100 120 160 200 220 mm				
... surface				
SA = black anodised				
ME = natural colour anodised				
MS = case profile SA, cover panels ME				
... fixing strap (optional)				
L = with fixing straps				
... colour design strip				
HB = sky blue				
KR = carmine red				
GL = bright green				
RO = pure orange				
SG = sulphur yellow				

Case with cooling fins: Embedded case



contents of delivery: **1** = 1 x case profile; **2** = 2 x cover panel; **3** = 1 x bottom panel; **4** = mounting material

- universal cooling fin case made of aluminium extruded profile, cover panels in 2 mm thickness and removable bottom panel
- optimized heat dissipation by means of external cooling fins
- the integrated T-grooves in the case profile for mounting of i.e. mainboards in the Mini-ITX or NUC form factor by means of distance, bolts and mounting plate also EBX, Nano ITX, EPIC, ETX/XTX and PC/104 form factors by means
- internal guide grooves for inserting PCBs or mounting plates
- wall-, ceiling- or top-hat rail mounting by means of fixing straps or top-hat rail mounting from the bottom
- special designs, embedded cover panels, machinings, surfaces and printings upon request

art. no. EMB 135 ...	
art. no. EMB 175 ...	
please indicate: ... 105 150 200 250 mm ... way of fixation (optional) KL = fixing of mounting rail LS = mounting strap set	... surface SA = black anodised ME = natural colour anodised MS = case profile SA, cover panels ME ... accessories (optional) BL = bottom panel with ventilation slots

* accessories mounting set BFS

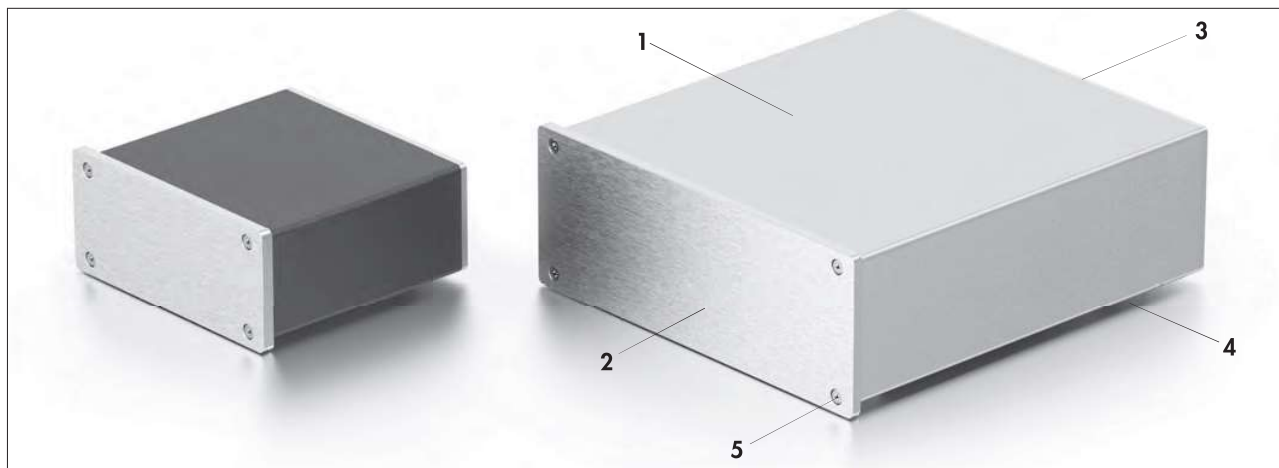
A

Aluminium decorative case

B

C

D



contents of delivery: **1** = 2 x case profile; **2** = 1 x front panel; **3** = 1 x back panel; **4** = device base (PVC); **5** = mount. material

E

- high class decorative and robust case made of aluminium
- on the basis of combination case profiles → **KOH ...** and → **KO HL ...**
- front panel decoratively polished with 180 grit, case profile glass bead blasted
- suitable as an amplifier case or for similar applications with highly decorative standards
- other device bases upon request
- individual customer specific machinings and surface coating upon request

F

G

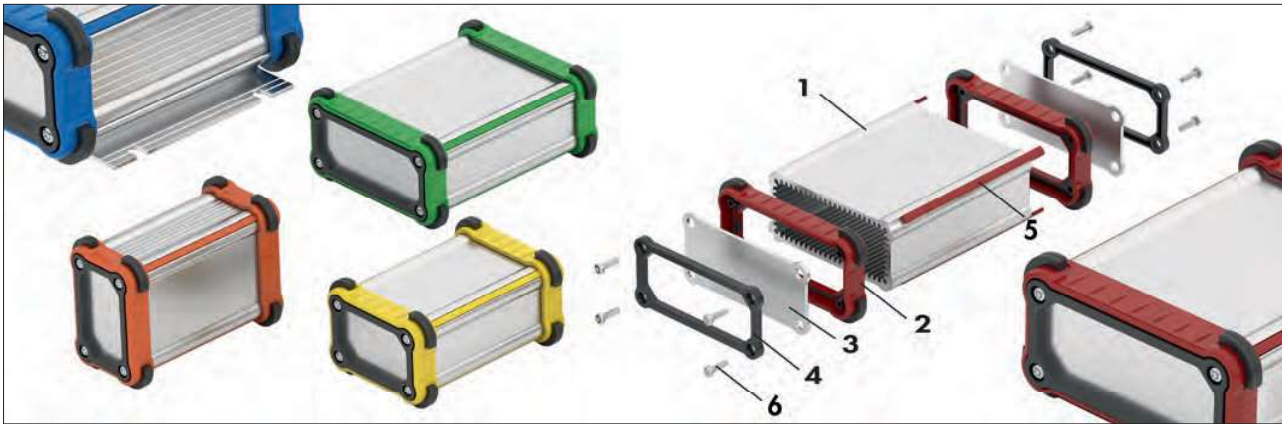
H

art. no.	
ADG 111 50 ...	
art. no.	
ADG 171 65 ...	
please indicate:	... 100 120 160 200 220 234 mm ... front panels 6 = 6 mm 8 = 8 mm 10 = 10 mm ... surface SA = black anodised ME = natural colour anodised MS = case profile SA, front panels ME

M

N

Design case SECCO

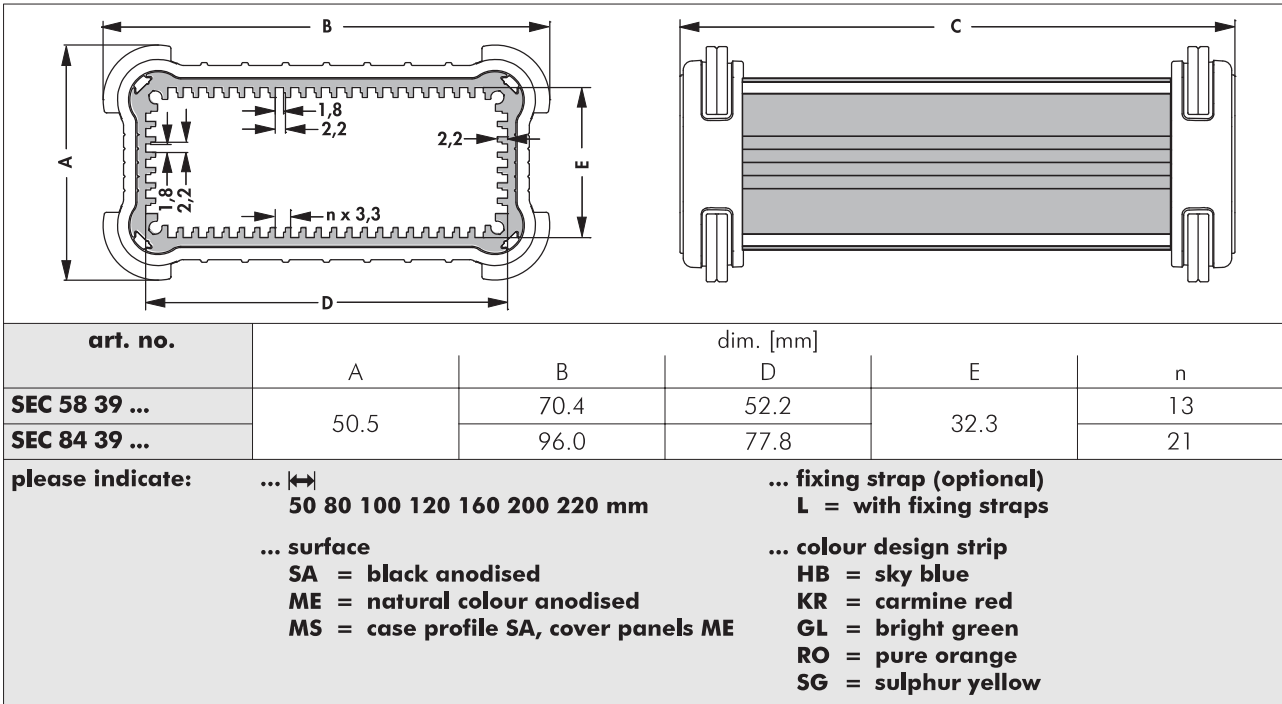


contents of delivery:

- 1 = 1 x basic profile
- 2 = 2 x plastic exterior frame
- 3 = 2 x cover panel (2 mm)
- 4 = 2 x plastic pressed on frame (similar RAL 7012)
- 5 = 4 x plastic design strip
- 6 = mounting material

- multi-purpose tube case made of aluminium with integrated guide slots for mounting non-standard PCBs or devices
- unique, elegant design with shock-proof plastic covers and integrated sealing
- horizontal or vertical mounting possibility of the PCB with 1.6 or 2 mm thickness
- protection class IP 67 achievable without using additional sealings
- integration possibility of front foils or front keypads
- special designs and treatments, modifications and versions possible according to your demand
- outer frames and design strips in sky blue (similar to RAL 5015), brick red (similar to RAL 3002), bright green (similar to RAL 6038), pure orange (similar to RAL 2004) or sulphur yellow (similar to RAL 1016)
- other colours and surfaces upon request

C = deliverable inside length +19 mm



A

19" insert with low depth

B

C

D



E

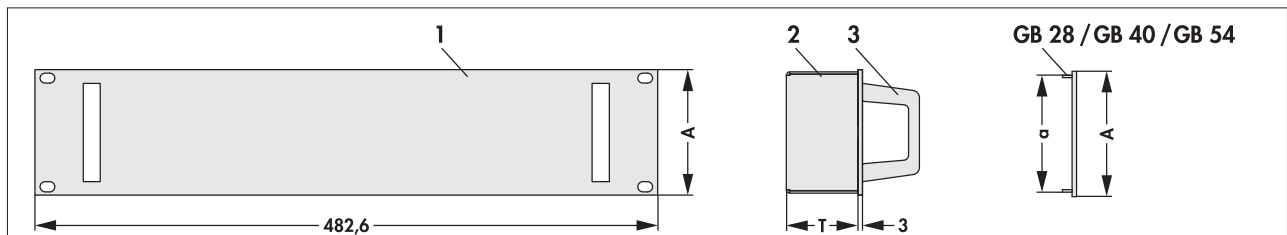
contents of delivery:

1 = front panel (made of profiles **GB 28**, **GB 40**, **GB 54**); **2** = hood; **3** = handles (optional); mounting material

F

- 19" insert with low depth for insertion of non-standardised devices or PCBs
- front panels made of extruded aluminium profiles 1 U up to 3 U, hoods made of 1.5mm aluminium sheets
- insertion depth 50 mm and 70 mm
- case optionally with handles as well as hoods with ventilation slots
- surface of the single components is natural colour anodised
- other depths, surfaces and customer specific machinings upon request

G



H

art. no.	dim. [mm]			art. no.	dim. [mm]		
	A		T		A		T
VESA GT 1 50 ...	43.8	39.6	50	VESA GT 1 70 ...	43.8	39.6	70
VESA GT 2 50 ...	88.1	81.8		VESA GT 2 70 ...	88.1	81.8	
VESA GT 3 50 ...	132.5	126.2		VESA GT 3 70 ...	132.5	126.2	
please indicate: ... accessories (optional) G = handles ML = ventilation slots							
surface:		natural colour anodised					

K

L

M

N

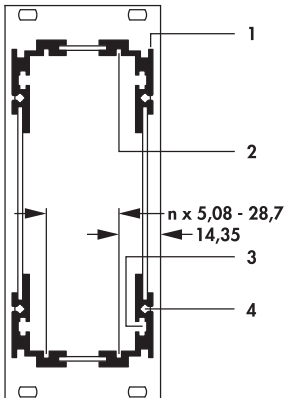
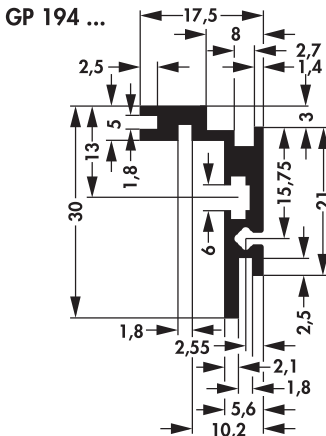
Insert modules for 19" subracks, 3 U

Design G

- insert modules made of four corner extrusions with T-grooves for threaded rails, slide nuts M 3 or screw heads
- with the corner extrusions the insert modules can be produced in any standard size and in any customer specific size
- external screw channels prevent short circuits by screw swarfs
- dimensioned drawing of the corner extrusion **GP 194**
- photo view from rear with removed back panel

1 = guide ridge for 19" case; **2** = slot for PCB guides;

3 = slot for threaded rails, hexagon screws respectively screw nuts M 3; **4** = external screw channel M 3

								
art. no.		HP	art. no.		HP	art. no.		HP
GME 10 ...	ME	10	GSA 10 ...	SA	10	GTP 10 ...	TP	10
GME 12 ...		12	GSA 12 ...		12	GTP 12 ...		12
GME 14 ...		14	GSA 14 ...		14	GTP 14 ...		14
GME 16 ...		16	GSA 16 ...		16	GTP 16 ...		16
GME 20 ...		20	GSA 20 ...		20	GTP 20 ...		20
please indicate:								
... insert depth 160 220 mm			... cut-out of rear panel R 1, R 2, R 3					
... perforated cover panel (optional) L			... handle (optional) KG = plastic-handle AG = aluminium-handle					

ME = front panel, profiles and rear panel natural colour anodised

SA = front panel natural colour anodised, profiles and rear panel black anodised

TP = front panel, profiles and rear panel transparent passivated

cut-out of rear panel R 1 - R 3 explanation page → **Available rear panels**

Profile section

art. no.	surface	dim. [mm]
GP 194 1000 AL	AL	1000
GP 194 166 ME	ME	166
GP 194 226 ME		226
GP 194 1000 ME		1000

AL = nature degreased

ME = natural colour anodised

A

B

C

D

E

F

G

H

I

K

L

M

N

Accessories for insert modules

Available rear panels

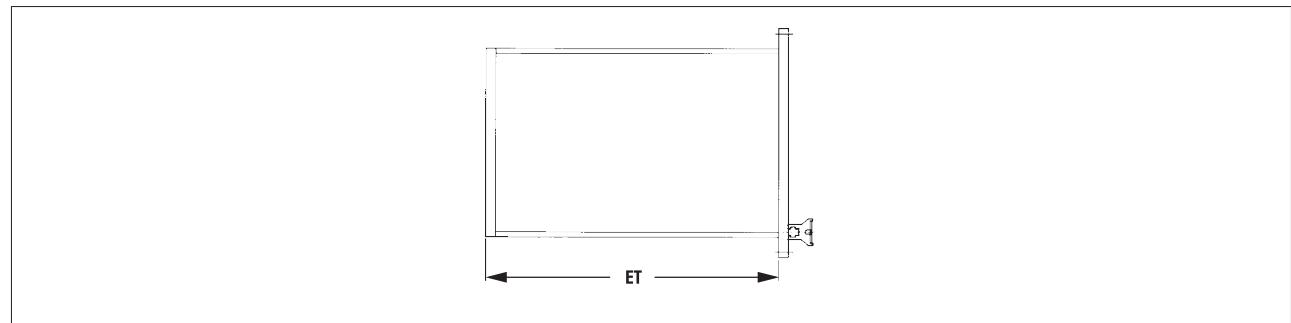
– when viewed from the rear, the male and female connector cut-outs are located on the right hand side

1 = no. for order example; **2** = dimensioned drawing; **3** = fitting to connectors

1	2	3
R 1		
R 2		DIN 41612 B 64 C 64 (32) C 96 D 32 H 11 M 31-polig DIN 41617
R 3		DIN 41612 B 64 C 64 (32) C 96 D 32 F 48 (32) F 24/H 7 H 15

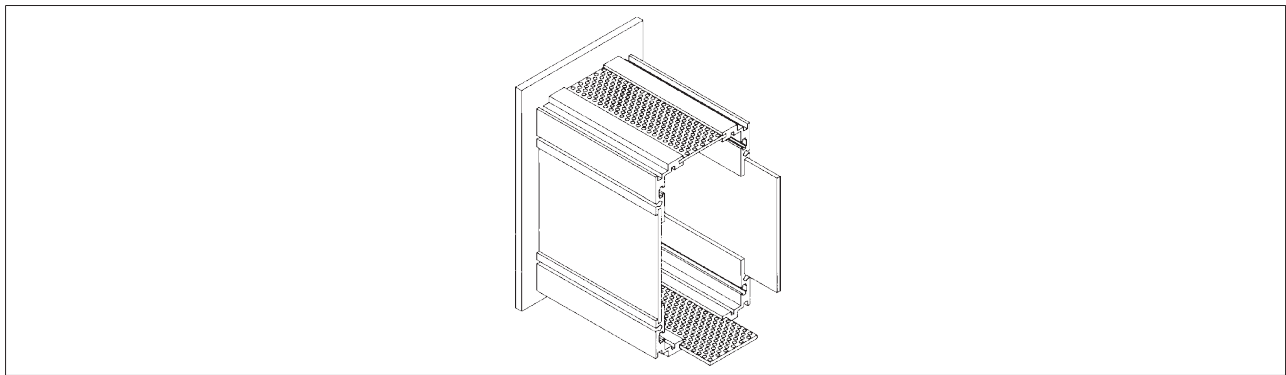
Insert depth (ET)

- **160** = insert depth $168^{+0,5}$ mm, suitable for Eurocards 100 x 160 mm / 233.4 x 160 mm
- **220** = insert depth $228^{+0,5}$ mm, suitable for Eurocards 100 x 220 mm / 233.4 x 220 mm



Perforated cover panel

– hole diameter 3.2 mm only for designs **A, B, C, D, E, G, S** and **T**


Handles

- **AG** = front panel with anodised aluminium-handle and fixing material
- **KG** = front panel with plastic-handle, anodised aluminium-insert strip and fixing material


A
B
C
D
E
F
G
H
I
K
L
M
N